BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: BYATARAYANAPURA

Name of Work: ***MODIFIED ESTIMATE FOR Package 4 Includes 3 Works Rs. 100.00 Lakhs.***

JOB CODE: 006-18-000035, 006-18-000043, 006-18-000045

Estimated Cost: Rs. 100.00 Lakhs
Approved Cost: Rs. 94.71 Lakhs
Executed Cost: Rs. 94.69 Lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work: Modified Estimate for Package 4 Includes 3 Works Rs. 100.00 Lakhs.

S. No.	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
1	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 142 / Item No. 19.1, PWD SR 2016-17**	cum							
	CC Drain								
	Muninagappa Layout Main Road		2.00	150.00	1.10	1.00	330.00		
	Desilting drains								
	Golden Treat Layout								
	Main Road		2.00	200.00	0.60	0.60	144.00		
	Cross Road R/S 1		1.00	65.00	0.60	0.60	23.40		
	Cross Road R/S 2		1.00	65.00	0.60	0.60	23.40		
	Cross Road R/S 3		1.00	60.00	0.60	0.60	21.60		
	Sadiq Layout								
	ROAD 4(W1515 sadiq layout cross road)		2.00	75.00	0.60	0.60	54.00		
	ROAD 5 (W1493 sadiq layout cross road)		2.00	142.00	0.60	0.60	102.24		
	ROAD 6(W1483 sadiq layout cross road)		2.00	143.00	0.60	0.60	102.96		
	Culverts								
	Muninagappa Layout		2.00	5.60	2.00	1.20	26.88		
	Golden Treat Layout		4.00	5.50	2.00	1.20	52.80		
	Total						**881.28**	198.14	**174617.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25-I.No.5.33)	Sqm							
	Drain slab								
	Golden Treat Layout								
	Main Road		2.00	200.00	1.80		720.00		
							720.00		
	deduct missing slabs						**108.00**		
					Net		**612.00**	85.39	**52259.00**
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete. (P.No.25,I.No.5.31.1)	Sqm							
	Consider 16% of Damaged Slabs			Qty Vide Item No. 2			**108.00**	705.62	**76207.00**
4	KSRB 4-1.2 : Providing and laying in position **plain cement concrete of mix 1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation** including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **(P.No. 12/I.No. 4.2 of CSR 2016-17)**	Cum							
	CC Drain								
	Muninagappa Layout Main Road		2.00	150.00	1.00	0.15	45.00		

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
	Culverts								
	Muninagappa Layout		2.00	5.60	1.80	0.15	3.02		
	Golden Treat Layout		4.00	5.50	1.80	0.15	5.94		
	Total Qty						**53.96**		
	Qty upto 125%						**26.98**	5669.69	**152940.00**
	Qty Above 125%						**26.99**	5664.94	**152891.00**
	Basic Rate	5194							
	Area Weightage @ 6%	311.64							
	Total	**5505.64**							
	Compair with Tender Rate	**2.89346**							
	Tender Premium for this Qty @ +2.89%	159.303							
	Total	**5664.94**							
5	KSRB 4-6.1 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.28, PWD SR 2016-17**	Sqm							
			Not Executed						
6	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm							
	CC Drain								
	Muninagappa Layout Main Road		2x4	150.00		0.60	720.00		
	Total Qty						**720.00**		
	Qty upto 125%						**49.50**	329.21	**16296.00**
	Qty Above 125%						**670.50**	321.53	**215588.00**
	Basic Rate	358							
	Area Weightage @ 6%	21.48							
	Total	**379.48**							
	Compair with Tender Rate	**-15.27**							
	Tender Premium for this Qty @ 15.27%	-57.946							
	Total	**321.534**							
7	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	CC Drain Bottom								
	Muninagappa Layout Main Road		2.00	150.00	1.00	0.15	45.00		
	Side Wall								
	Muninagappa Layout Main Road		2x2	150.00	0.15	0.60	54.00		

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
	Total Qty						**99.00**		
	Qty upto 125%						**14.95**	6605.64	**98754.00**
	Qty Above 125%						**84.05**	6500.09	**546333.00**
	Basic Rate	5444							
	Area Weightage @ 6%	326.64							
	Total	**5770.64**							
	Compair with Tender Rate	**12.6407**							
	Tender Premium for this Qty @ 12.64%	729.45							
	Total	**6500.09**							
8	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **- TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
	Consider 60 Kg/Cum		0.06	99.00			5.94		
	Total Qty						**5.94**		
	Qty upto 125%						**1.20**	78112.67	**93735.00**
	Qty Above 125%						**4.74**	78005.84	**369748.00**
	Basic Rate	70966							
	Area Weightage @ 6%	4257.96							
	Total	**75224**							
	Compair with Tender Rate	**3.69813**							
	Tender Premium for this Qty @ 3.70%	2781.88							
	Total	**78005.8**							
9	**Providing precast slab of 250mm thick including** cost of all materials, labour, curing, transportation, loading unloading, etc.,complete as per the direction of engineer in charge - (Data rate Approved).	Sqm							
	Muninagappa Layout		4.00	5.60	1.50		33.60		
	Golden Treat Layout		4.00	5.50	1.50		33.00		
							66.60	5636.02	**375359.00**
10	**Excavation in Soil using Hydraulic Excavator CK** 90 and Tippers with Disposal KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location and complete as per specifications. MORTH Specification No.301	cum							
	Muninagappa Layout								
	Main Road		1.00	170.00	5.70	0.25	242.25		
	Cross Road		1.00	70.00	5.00	0.25	87.50		
	Golden Treat Layout								
	Main Road		1.00	200.00	7.50	0.25	375.00		
	Cross Road R/S 1		1.00	65.00	5.00	0.25	81.25		

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
	Cross Road R/S 2		1.00	65.00	4.50	0.25	73.13		
	Cross Road R/S 3		1.00	60.00	4.60	0.25	69.00		
	Sadiq Layout								
	ROAD 4(W1515 sadiq layout cross road)		1.00	75.00	6.20	0.25	116.25		
	ROAD 5 (W1493 sadiq layout cross road)		1.00	142.00	6.30	0.23	205.76		
	ROAD 6(W1483 sadiq layout cross road)		1.00	143.00	4.50	0.20	128.70		
							1378.83	157.69	**217428.00**
11	KSRRB M400-17.Providing,laying, spreading and compacting crushed stone aggregates of granite/trap/ basalt to wet mix macadam specification including pre mixing the Material with water at OMC in mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density. complete as per specifications.MORTH specification No.406(Page No.158,I.No.20.18)	Cum							
	Muninagappa Layout								
	Main Road		1.00	170.00	5.70	0.25	242.25		
	Cross Road		1.00	125.00	5.00	0.25	156.25		
	Golden Treat Layout								
	Main Road		1.00	200.00	7.50	0.25	375.00		
	Cross Road R/S 1		1.00	65.00	5.00	0.25	81.25		
	Cross Road R/S 2		1.00	65.00	4.50	0.25	73.13		
	Cross Road R/S 3		1.00	60.00	4.60	0.25	69.00		
	Sadiq Layout								
	ROAD 4(W1515 sadiq layout cross road)		1.00	75.00	6.20	0.25	116.25		
	ROAD 5 (W1493 sadiq layout cross road)		1.00	142.00	6.30	0.23	205.76		
	ROAD 6(W1483 sadiq layout cross road)		1.00	143.00	4.50	0.23	148.01		
	Total Qty						**1466.89**	1874.16	**2749183.00**
12	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
	Muninagappa Layout								
	Main Road		1.00	170.00	5.70		969.00		
	Cross Road		1.00	125.00	5.00		625.00		
	Golden Treat Layout								
	Main Road		1.00	200.00	7.50		1500.00		
	Cross Road R/S 1		1.00	65.00	5.00		325.00		
	Cross Road R/S 2		1.00	65.00	4.50		292.50		
	Cross Road R/S 3		1.00	60.00	4.60		276.00		
	Sadiq Layout								
	ROAD 4(W1515 sadiq layout cross road)		1.00	75.00	6.20		465.00		
	ROAD 5 (W1493 sadiq layout cross road)		1.00	142.00	6.30		894.60		
	ROAD 6(W1483 sadiq layout cross road)		1.00	143.00	4.50		643.50		
	Total Qty						**5990.60**	31.46	**188464.00**

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **Page No. 161 / Item No. 21.6, PWD SR 2016-17**	Sqm							
			Not Executed						
14	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **Page No. 161 / Item No. 21.7m PWD SR 2016-17**	Sqm							
	Considered same Above Qty 12						5990.60		
	Cross Road		1.00	36.00	5.00		180.00		
	Total Qty						**6170.60**	13.48	**83180.00**
15	KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen Page No. 165 / Item No. 21.22.6, PWD SR 2016-17**	Cum							
	Muninagappa Layout								
	Main Road		1.00	170.00	5.70	0.04	38.76		
	Cross Road		1.00	125.00	5.00	0.04	25.00		
	Cross Road		1.00	36.00	5.00	0.04	7.20		
	Golden Treat Layout								
	Main Road		1.00	200.00	7.50	0.04	60.00		
	Cross Road R/S 1		1.00	65.00	5.00	0.04	13.00		
	Cross Road R/S 2		1.00	65.00	4.50	0.04	11.70		
	Cross Road R/S 3		1.00	60.00	4.60	0.04	11.04		
	Sadiq Layout								
	ROAD 4(W1515 sadiq layout cross road)		1.00	75.00	6.20	0.04	18.60		
	ROAD 5 (W1493 sadiq layout cross road)		1.00	142.00	6.30	0.04	35.78		
	ROAD 6(W1483 sadiq layout cross road)		1.00	143.00	4.50	0.04	25.74		
	Total Qty						**246.82**	8494.42	**2096627.00**

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. (P.No.185-I.No.24.15)	Sqm							
	Muninagappa Layout								
	Main Road		2.00	170.00	0.10		34.00		
	Cross Road		2.00	125.00	0.10		25.00		
	Golden Treat Layout								
	Main Road		2.00	200.00	0.10		40.00		
	Cross Road R/S 1		2.00	65.00	0.10		13.00		
	Cross Road R/S 2		2.00	65.00	0.10		13.00		
	Cross Road R/S 3		2.00	60.00	0.10		12.00		
	Sadiq Layout								
	ROAD 4(W1515 sadiq layout cross road)		2.00	75.00	0.10		15.00		
	ROAD 5 (W1493 sadiq layout cross road)		2.00	142.00	0.10		28.40		
	ROAD 6(W1483 sadiq layout cross road)		2.00	143.00	0.10		28.60		
	Total						**209.00**	575.28	**120234.00**
17	Pg No.23 Item No. 5.5 KSRB 5.2-2 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:8, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13	Cum							
	Culverts								
	Muninagappa Layout		2x2	5.60	0.60	0.90	24.19		
	Golden Treat Layout		4x2	5.50	0.60	0.90	23.76		
	Total						**47.95**	4704.51	**225591.00**
18	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 113 / Item No. 15.1, PWD SR 2016-17**	Sqm							
	Culverts								
	Muninagappa Layout		2x2	5.60		0.90	40.32		
	Golden Treat Layout		4x2	5.50		0.90	19.80		
	Total						**60.12**	108.99	**6552.00**

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	Culverts Coping								
	Muninagappa Layout		2x2	5.60	0.60	0.10	2.69		
	Golden Treat Layout		4x2	5.50	0.60	0.10	2.64		
	vent		2.00	5.60	0.60	0.10	0.67		
			4.00	5.50	0.60	0.10	1.32		
	Total						**7.32**	6113.51	**44751.00**
	EIRL								
E1	Providing precast slab of 100mm thick including cost of all materials, labour, curing, transportation, loading unloading, etc.,complete as per the direction of engineer in charge (Data rate Approved).	Sqm							
	Muninagappa Layout		2.00	175.00	0.90		315.00		
	missing slabs		2.00	9.00	0.90		16.20		
							331.20	2476.99	**820378.00**
	Basic Rate	2337							
	Total	**2337**							
	Tender Premium @ 5.99% Above	139.986							
	Grand Total	**2476.99**							
E2	KSRB 4-1.4 : Providing and laying in position plain cement concrete of Mix 1:5:10 with OPC @ 160kgs, with 40mm and down size graded granite metal coarse aggregates @0.86cum and fine aggregtes @ 0.58cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4. **Item No 4.4. P 13 / PWD SR 2018-19**	**cum**							
			1.00	70.00	4.80	0.15	**50.40**	5634.32	**283970.00**
	Basic Rate	5015							
	Area Weightage @ 6%	300.9							
	Total	**5315.9**							
	Tender Premium @ 5.99% Above	318.422							
	Grand Total	**5634.32**							

	Description of work	Mesurement					Qty	Rate	Amount
		Unit	No	L	B	D			
3	KSRRB M600-6: **cement concrete pavement,** construction unreinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with 43 grade cement or any other type as per clause 1051.2.2M20/M30 at 380/450 kg per cum, coarse and fine aggregate conforming to IS: 383, maximum size of coarse aggregate not exceeding 25mm, mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including leveling the form work as per drawing,), spreading the concrete with shovels, rackers compacted using needle, scred and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant,	**cum**							
			1.00	70.00	4.80	0.15	**50.40**	5523.10	**278364.00**
	Basic Rate	4916							
	Area Weightage @ 6%	294.96							
	Total	**5210.96**							
	Tender Premium @ 5.99% Above	312.137							
	Grand Total	**5523.1**							
E4	**Vaccum De- writing with vaccum pump** and suction mat and compaction with skin flater clubbed with floatiog disc including cost of generator, HOM of machinery Sereed Vibratory Power Floaterblade and diisc etc. with all lead and lift No. 171/ Item No. 22.7/ PWD SR 2018-19	**sqm**							
			1.00	70.00	4.80		**336.00**	**90.07**	**30264.00**
	Basic Rate	**68**							
	6% area weightage	16.98							
	Total	**84.98**							
	Tender Premium @ 5.99% Above	5.0903							
	Grand Total	**90.0703**							
								Total	**9469713.00**
Rupees Ninety Four Lakh(s) Sixty Nine Thousand Seven Hundred Thirteen Only									

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2017-18, +/- Tender Premium.
3 This works come under B.B.M.P. limits.

13/12/2019
Assistant Engineer
Ward No. 06

20.12.19
Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

Technical Sanction
Accorded For RS.9469713.00
Head of A/C P3316
CER NO 34 Dt: 19.12.2019

TA CE (YNK)